

Concrete Committee Webinars - Frontiers of Concrete Technology (FCT)

Kohei NAGAI, The University of Tokyo

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) has started the international webinar series “Frontiers of Concrete Technology” (FCT) from 2021. It is intended to hold the webinar 2 or 3 times a year, and the third seminar was held in March 2022.

The seminar aims to convey Japan’s cutting-edge research in concrete technology to the world. Themes are set for the seminars, and one Japanese researcher and one overseas researcher working on the selected theme are invited to deliver the lectures. The seminars provide time for a panel discussion, in which the overall history, the present status, and the future direction of that field of research are discussed.

The third seminar was held on March 9 on the theme “Simulation of concrete and reinforced concrete structures using discrete analysis models”. The invited speakers were Professor Hikaru Nakamura of Nagoya University (Japan), and Professor John Bolander of University of California, Davis (U.S.). Both are distinguished researchers worldwide in the field of numerical simulation of concrete material and structures using discrete analysis models.

3rd JSCE Concrete Committee Webinar

Frontiers of Concrete Technology

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) holds a webinar on the frontiers in concrete research and technology to share and discuss the cutting-edge technologies of concrete materials and structures. We invite two leading researchers from the advanced field in concrete engineering. After their presentations (30min.x2), we discuss the field's current status and future direction (50min.).

Photo: Onahama Marine Bridge, JSCE Tanaka Award (2017)

Simulation of concrete and reinforced concrete structures using discrete analysis models

Invited researchers

 Prof. John E Bolander
University of California Davis
United States

 Prof. Hikaru Nakamura
Nagoya University
Japan

Date: March 9th 2022
Time: 10:00-12:00 (JST/UTC+9:00)

Participation fee: **Free** 

Registration: <https://form.run/@3rd-JSCE-Concrete-Committee-Webinar>
* After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

Inquiry: Concrete Committee, Japan Society of Civil Engineering (JSCE)
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    Concrete Committee, Japan Society of Civil Engineers (JSCE)
supported by
Asian Concrete Federation (ACF), Fib Young Members Group Japan

Seminar Flyer

The seminars can be viewed on the JSCE YouTube channel.

Third seminar: <https://www.youtube.com/watch?v=hwfl7mrs7-I>

The number of participants in the seminar was about 170. As it was a webinar, there were participants from throughout the world, mainly from Asia. The seminars can be viewed on the JSCE YouTube channel, and the site has over 700 views now (May 2022).

In the seminar, Prof. Bolander explained the basic concepts of concrete material and structural analyses using discrete analysis methods and how to treat concrete cracks. He also introduced the latest analyses of fiber reinforced concrete, hydration process, etc. Prof. Nakamura presented the results of simulations mainly on the structural performance for design and evaluation of deteriorated structures. In the panel discussion, they discussed the advantages of discrete analysis, which can directly represent cracks in concrete analysis, and the possibility of its future applications.

The report of the past seminars is below.

http://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter63/Newsletter63_files/FCT.pdf

YouTube channel.

First seminar: <https://www.youtube.com/watch?v=IP65Dudd6tk>

Second seminar: <https://www.youtube.com/watch?v=ArU-x-oyGig>

1st JSCE Concrete Committee Webinar

Frontiers of Concrete Technology

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) holds a webinar on the frontiers in concrete research and technology to share and discuss the cutting-edge technologies of concrete materials and structures. We invite two leading researchers from the advanced field in concrete engineering. After their presentations (30min.x2), we discuss the field's current status and future direction (40min).

Photo: Ohashima Marine Bridge, JSCE Tanaka Award (2017)

Use of FRP Composites for Sustainable Concrete Structures

Invited researchers

 **Prof. Tamon Ueda**
Department of Civil Engineering
Shenzhen University, China

 **Prof. Jian-Guo Dai**
Department of Civil and Environmental Engineering
The Hong Kong Polytechnic University, China

Date: April 16th 2021
Time: 16:00-18:00 (JST/UTC+9:00)

Participation fee: **Free** 

Registration: <https://form.run/@1st-JSCE-Concrete-Committee-Webinar>
* After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

Inquiry: Concrete Committee, Japan Society of Civil Engineering (JSCE)
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Concrete Committee, Japan Society of Civil Engineers (JSCE)
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Asian Concrete Federation

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2nd JSCE Concrete Committee Webinar

Frontiers of Concrete Technology

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) holds a webinar on the frontiers in concrete research and technology to share and discuss the cutting-edge technologies of concrete materials and structures. We invite two leading researchers from the advanced field in concrete engineering. After their presentations, we discuss the field's current status and future direction.

Photo: Ohashima Marine Bridge, JSCE Tanaka Award (2017)

Aging Management of Concrete Structures in Nuclear Power Plants

- Internal swelling reaction of concrete -

Invited researchers

 **Dr. Ippei Maruyama**
Professor
Graduate School of Environmental Studies
Nagoya University
Japan

 **Dr. Miguel Ferreira**
Senior Scientist
Structural Materials group,
VTT Technical Research Centre of Finland Ltd.
Finland

Moderator

 **Dr. Kenichiro Nakarai**
Professor, Hiroshima University, Japan

Date: August 4th 2021 Time: 16:00-18:00 (JST/UTC+9:00)

Admission fee: **Free** 

Registration: <https://form.run/@2nd-JSCE-Concrete-Committee-Webinar>
※ After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

Inquiry: Concrete Committee, Japan Society of Civil Engineers (JSCE), Dr. Hayato Takahashi e-mail: hayato_takahashi@rs.tus.ac.jp

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